

# **Design of a sound intensity measurement system for application in factories and industrial plants**

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**Abstract:** In the production process at factories and industrial plants, managing sound levels is necessary to ensure health safety and the working environment. This project focuses on designing a sound intensity measurement system to provide accurate information about sound levels within the production range. By applying a combination of theoretical research and experimental methods, the system is built based on modern sensors and digital signal processing technology. The objective of the project is to solve the problem of automatic and continuous sound measurement in the industrial environment. The expected results from this research will significantly contribute to improving performance and labor safety in factories.

**Keywords:** Sound intensity measurement system, Factory and industrial plants, Sound sensor, Digital signal processing technology, Workplace environmental safety